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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,550	09/28/1999	YOICHIRO SAKO	450100-02103	2896
20999	7590	11/01/2006	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			ODOM, CURTIS B	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/407,550

Applicant(s)

SAKO ET AL.

Examiner

Curtis B. Odom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15, 17-45, 48-60, 62-103, and 105-149 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 58-60, 62-103 and 105-145 is/are allowed.
- 6) ☒ Claim(s) 1-13, 15, 17-20, 22-45, 48-57, and 146-149 is/are rejected.
- 7) ☒ Claim(s) 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Response to Arguments***

1. Applicant's arguments filed 8/17/06 have been fully considered but they are not persuasive. Regarding claims 1-9, 11-13, 15, 17-20, 22-31, 33-41, 43-45, and 48-57, the applicant states Lert, Jr. et al. (U. S. Patent No. 4, 230, 990) does not disclose "constructing additional information in which...a second signal is disposed, wherein said broadcast signal comprises said second signal superimposed on a first signal. However, Lert et al. discloses a cue signal representing additional information to identify a program (see column 6, lines 18-22). Lert, Jr. et al. further discloses the cue signal may be placed in audio or video portions of a broadcast signal and may be a pure audio tone inserted into the sound track of programs to be identified (see column 7, lines 46-57). Therefore, it would be obvious to one skilled in the art that since a television broadcast signal is an audio signal superimposed on a video signal that the audio tone in the audio portion of the broadcast signal is superimposed on a video signal. Lert, Jr. et al. further discloses the cue signal can be an audio network logo which signals the identity of the network (see column 7, line 66-column 8, line 2) during a broadcast. Therefore, it is the understanding of the examiner that a cue signal represents additional information where audio (second) signals are also disposed, wherein the cue signals inserted in the audio signals are superimposed on a video signal. Furthermore, the applicant suggests the Examiner's suggested combination regarding the above claims would not function because the broadcast signal of Jeffers et al. (U. S. Patent No. 4, 739, 510) does not include a header. However, Jeffers et al.

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discloses the television broadcast signal includes 8 bits of addressable data stream with from a plurality of program headers (see column 16, lines 1-21).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9, 11-13, 15, 17-20, 22-31, 33-41, 43-45, and 48-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffers et al. (previously cited in Office Action 11/13/03) in view of Lert, Jr. et al. (previously cited in Office Action 5/17/2006).

Regarding claim 1, Jeffers et al. discloses a transmitting method for transmitting a predetermined broadcast signal together with predetermined additional (header) information (column 5, lines 38-61), the method comprising:

constructing (column 5, lines 38-61 and column 16, lines 1-37) the additional information (data stream containing header and audio signal) in which acquiring information necessary to acquire related data to the broadcast signal, wherein the broadcast signal is a signal in which a second (audio) signal is superimposed also on a first (video) signal (column 5, lines 38-61 and column 9, lines 23-33), wherein the audio signal (second signal) is superimposed on a video signal (first signal); and

transmitting the broadcast signal (column 2, lines 35-43), and transmitting the additional (header) information, in which the acquiring information concerning the related data to this broadcast signal is disposed on plural occasions during the transmission of the broadcast signal (column 16, lines 38-45).

Jeffers et al. does not disclose the additional information includes an audio (second) signal.

However, Lert, Jr. et al. discloses an audio signal known as a cue signal (column 14, lines 56-62) which is used to identify the broadcast signal (column 6, lines 15-20 and column 6, lines 31-40). Lert, Jr. et al. further discloses the cue signal is transmitted (inserted) on plural occasions during transmission of the broadcast signal (column 11, lines 18-30), wherein once the signal is broadcast (transmitted) the cue signal is used to identify the broadcast (program) signal (column 11, lines 37-50). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the broadcast method of Jeffers et al. with the insertion of the cue signal of Lert, Jr et al. in broadcast related data such as a program header since Lert, Jr et al. states the cue signal allows for an enormous reduction in the amount of data processing required in order to access program (broadcast) related information (column 6, lines 45-55).

Regarding claim 2, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the additional information (program header) in which the acquiring information is disposed is transmitted periodically in the transmitting step (Fig. 3, and column 16, lines 39-45).

Regarding claim 3, Jeffers et al. discloses transmitting method as claimed in claim 1, further comprising an error detection/correction step for performing error detection/correction on additional (header) information (column 16, lines 39-58).

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Regarding claim 4, Jeffers et al. discloses a transmitting method as claimed in claim 3, wherein the additional (header) information is transmitted in units on which error detection/correction has been performed (column 16, lines 39-58), wherein packets are units.

Regarding claim 5, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the acquiring information comprises unique information uniquely assigned to the related data (column 5, lines 54-61) such as decryption data.

Regarding claim 6, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the acquiring information comprises recognizing information useful for recognizing the content of the related data (column 6, line 44-63) such as synchronization data.

Regarding claim 7, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the acquiring information comprises access information used for accessing an access location where the related data is provided (column 7, lines 30-44) such as decryption information.

Regarding claim 8, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the additional (program-related) information in predetermined units comprises the acquiring information according to claim 1 when the additional information is transmitted in predetermined bit units (column 16, lines 1-19).

Regarding claim 9, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein the program-related data is video data or audio data such as video synchronization data when the broadcast signal is predetermined video data or audio data (column 5, lines 54-61).

Regarding claim 11, Jeffers et al. discloses a transmitting method as claimed in claim 1, wherein information (decryption data) useful for recognizing the content of the related data

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(encrypted data message) is disposed in the additional program-related information in addition to the acquiring synchronization information in the constructing step (column 5, lines 54-61 and column 7, lines 31-44).

Regarding claim 12, Jeffers et al. discloses transmitting method as claimed in claim 1, wherein the related program identification data is disposed in the additional information in addition to the acquiring synchronization information in the constructing step (column 5, lines 54-61).

Regarding claim 13, Jeffers et al. discloses a transmitting method as claimed in claim 12, wherein the related data in which the additional information is disposed in the broadcast signal, is encoded (column 1, lines 35-47).

Regarding claim 15, which inherit the limitations of claim 1, Jeffers et al. discloses the first signal in a predetermined image or sound (video signal), and the second signal is a noise (audio signal) apart from the image or sound (column 16, lines 1-18).

Regarding claim 17, Lert, Jr. et al further discloses the cue signal in encoded as an ancillary audio signal (column 1, lines 48-62 and column 18, lines 17-25). It would have been obvious to include this feature since Lert, Jr. et al. states the encoded signal is reliable (column 18, lines 17-25).

Regarding claim 18, which inherits the limitations of claim 1, Jeffers et al. discloses the first signal is a first image or sound (video signal), the second signal is a second image or sound (audio signal), and part of the first image or sound and the second image or sound overlay in time in the broadcast signal using time division multiplexing (column 1, line 59-column 2, line

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5), wherein the combination of the signals using time division multiplexing causes portions of the signals to overlap in time.

Regarding claim 19, which inherits the limitations of claim 18, Jeffers et al. discloses the end of the first image or sound (video signal) and the beginning of the second image or sound (audio signal) overlap when the first image or sound is transmitted first and the second image or sound is transmitted later using time division multiplexing (column 1, line 59-column 2, line 5), wherein time division multiplexing techniques allow control the time at which signal are transmitted, making it possible for signals to overlap.

Regarding claim 20, which inherits the limitations of claim 18, Jeffers et al. discloses the time amplitude of the part where part of the first image or sound and the second image or sound overlap, is variable using time division multiplexing (column 1, line 59-column 2, line 5), wherein time division multiplexing techniques allow the control of time amplitudes for transmission.

Regarding claim 22, Lert, Jr. et al. further discloses the cue signal which includes a sound which allows identification of the broadcast signal in combined (overlaps) with the broadcast signal (column 9, lines 53-62) and is constructed during construction of the broadcast signal (column 11, lines 18-30). It would have been obvious to include this feature since Lert, Jr et al. states the cue signal allows for an enormous reduction in the amount of data processing required in order to access program (broadcast) related information (column 6, lines 45-55).

Regarding claim 23, which inherits the limitations of claim 22, Lert Jr. et al. discloses the cue signal which comprises a sound is transmitted with the broadcast signal corresponding to either a first image or sound (video signal), or a broadcast signal corresponding to a second



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image or sound (audio signal), or to both, in the transmitting step (column 9, lines 53-62). would have been obvious to include this feature since Lert, Jr et al. states the cue signal allows for an enormous reduction in the amount of data processing required in order to access program (broadcast) related information (column 6, lines 45-55).

Regarding claim 24, which inherits the limitations of claim 22, Jeffers et al. discloses the cue signal including identification information is encoded as an ancillary audio signal (column 1, lines 48-62 and column 18, lines 17-25). It would have been obvious to include this feature since Lert, Jr. et al. states the encoded signal is reliable (column 18, lines 17-25).

Regarding claim 25, which inherits the limitations of claim 1, Jeffers et al. discloses a splitting step for splitting (column 16, lines 1-19) the related data into a first component (video and audio signals) and a second component (program-related, sync, encryption, and control information), wherein the first component is transmitted as the broadcast signal (video and audio signals) in the transmitting step (column 1, line 65-column 2, line 5).

Regarding claim 26, which inherits the limitations of claim 25, Jeffers et al. discloses the second component (encryption data) is also disposed in the additional header information in addition to the acquiring synchronization information (column 15, lines 46-64 and column 17, lines 27-34), in the constructing step.

Regarding claim 27, which inherits the limitations of claim 26, Jeffers et al. discloses the second component disposed in the additional header information is encoded with error check words (column 16, lines 46-59).

Regarding claim 28, which inherits the limitations of claim 25, Jeffers et al. discloses the first component is an upper bit audio data (column 16, lines 1-18); but does not disclose the second component is a high region component or a lower bit of the video data or audio data.

However, Lert Jr. et al. transmitting related data (cue signals) which include bits of ancillary audio signals (column 18, lines 17-25) used for identification of the broadcast signal (column 11, lines 37-50). Therefore, it would have been obvious to include this feature as second component since Lert, Jr et al. states the cue signal allows for an enormous reduction in the amount of data processing required in order to access program (broadcast) related information (column 6, lines 45-55).

Regarding claim 29, which inherits the limitations of claim 1, Jeffers et al. discloses the acquiring information comprises access information (group address) used for accessing a database (decoder memory in which the related (key) information is stored (column 22, line 35-column 23, line 30).

Regarding claim 30, which inherits the limitations of claim 29, Jeffers et al. discloses the acquiring information comprises unique information (data-sync information) assigned to the related (encryption) data in addition to the access information (column 23, lines 19-30).

Regarding claim 31, which inherits the limitations of claim 30, Jeffers et al. discloses the unique program-related information representative of an ISRC (column 23, lines 19-30), wherein the unique information could be any program related data such as an ISRC.

Regarding claim 33, Lert Jr. et al. discloses the cue signal comprises identification information for a visual or audio advertisement (commercial) when the broadcast signal is a predetermined program (column 11, lines 19-30). Therefore, it would have been obvious to

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include this feature as second component since Lert, Jr et al. states the cue signal allows for an enormous reduction in the amount of data processing required in order to access program (broadcast) related information (column 6, lines 45-55).

Regarding claim 34, Jeffers et al. discloses a transmitting device for transmitting a predetermined broadcast signal together with predetermined additional header information (Fig. 1, column 5, lines 38-61), the device comprising:

constructing means for constructing (column 5, lines 38-61 and column 16, lines 1-37) the additional header information in which acquiring information (decryption data) necessary to acquire related audio data to the broadcast signal is disposed (column 17, lines 29-34), wherein the broadcast signal is a signal in which comprises a second signal (audio signal) is superimposed on a first video signal (column 5, lines 38-42); and

transmitting means (column 2, lines 35-43) for transmitting the broadcast signal, and transmitting the additional header information, in which the acquiring (decryption data) information concerning the related data to this broadcast signal is disposed on plural occasions in the header information during the transmission of the broadcast signal (column 16, lines 38-45).

Jeffers et al. does not disclose the constructing means constructs the additional information by superimposing the second signal (audio signal) in addition to the acquiring information (header).

However, Lert, Jr. et al. discloses an audio signal known as a cue signal (column 14, lines 56-62) which is used to identify the broadcast signal (column 6, lines 15-20 and column 6, lines 31-40). Lert, Jr. et al. further discloses the cue signal is transmitted (inserted) on plural occasions during transmission of the broadcast signal (column 11, lines 18-30), wherein once the

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signal is broadcast (transmitted) the cue signal is used to identify the broadcast (program) signal (column 11, lines 37-50). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the broadcast method of Jeffers et al. with the insertion (super-imposing) of the cue signal of Lert, Jr et al. in broadcast related data such as a header information since Lert, Jr et al. states the cue signal allows for an enormous reduction in the amount of data processing required in order to access program (broadcast) related information (column 6, lines 45-55).

Regarding claims 35-41, 43-45, and 48-57, the claimed apparatus includes features corresponding to the above rejection of claims 2-7, 9, 11-13, 17, 18, and 22-29 which is applicable hereto.

4. Claims 10, 42, 146, and 147 are and are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffers et al. (previously cited in Office Action 11/13/03) in view of Lert, Jr. et al. (previously cited in Office Action 5/17/2006) as applied to claim 1, and in further view of Beuk et al. (U. S. Patent No. 6, 298, 480).

Regarding claims 10, 42, 146, and 147, Jeffers et al. and Lert, Jr et al. disclose all the limitations of claims 10, 42, 146, and 147 (see rejection of claim 1) except the related data is a computer program when the broadcast signal is video data or audio data obtained by executing the computer program.

However, Beuk et al. discloses distributing radio programs oriented towards computer users by broadcasting computer programs during a radio program (see column 1, lines 40-43). The computer programs are recorded and then loaded into a computer to execute the program (see column 1, lines 62-67) to obtain the radio program. Therefore, it would have been obvious

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to one skilled in the art at the time the invention was made that to implement the related data of Jeffers et al. and Lert Jr, et al. into a computer program in order to obtain radio program data using a computer program as disclosed by Beuk et al. since Beuk et al. states sending this information as a program and not data adds flexibility to the system (see column 8, lines 65-66).

5. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffers et al. (previously cited in Office Action 11/13/03) in view of Lert, Jr. et al. (previously cited in Office Action 5/17/2006) as applied to claim 1, and in further view of Kahn et al. (previously cited in Office Action 5/17/2006).

Regarding claim 32, Jeffers et al. and Lert Jr et al. disclose the broadcast can be a program of songs/records (see Lert Jr et al, column 1, lines 7-33). However, Jeffers et al. and Lert Jr. et al. do not disclose the additional header information comprises the titles of the songs, names of singers singing the songs, names of companies manufacturing the recording media on which the songs are recorded, jacket photos for the recording media, photos of the singers, or a part of the songs recorded on the recording media in the constructing step.

However, Kahn et al. discloses transmitting additional control data with an audio broadcast (column 1, line 63-column 2, line 5) wherein the control information includes song title, artist, producer, or record company (column 3, lines 33-43). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the additional information of Jeffers et al. and Lert Jr. et al. with the song information as disclosed by Kahn et al. for an audio broadcast since Kahn et al. states this provides the user with an easily compatible and simplified method of obtaining song information (column 2, lines 26-29).

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6. Claim 148 and 149 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffers et al. (previously cited in Office Action 11/13/03) in view of Beuk et al. (U. S. Patent No. 6, 298, 480).

Regarding claims 148 and 149, Jeffers et al. discloses a receiving method comprising:

receiving (column 15, lines 22-34) a predetermined broadcast signal (impulse pay-per-view) and predetermined additional information (header information) in which acquiring information (program-related information such as tag number) necessary to acquire related data related to this broadcast signal is disposed;

temporarily storing (column 14, lines 20-32 and column 22, lines 23-34) in a microcontroller/microprocessor the received additional header information into a temporary storage, wherein all information in the decoder passes through the microcontroller, the additional header information being associated with the pay-per-view broadcast (column 17, lines 40-52) and

storing (column 15, lines 22-34) the acquiring information (program related information such tag number) disposed in the additional header information (column 17, lines 40-52) temporarily stored in the microcontroller/microcomputer into a main storage (decoder memory) when the global address of the received information matches that of the decoder memory (column 22, lines 56-60) when there is a user input from a keyboard to request a pay-per-view program while receiving the pay-per-view program (column 15, lines 22-33).

Jeffers et al. does not disclose the related data is a computer program when the broadcast signal is video data or audio data obtained by executing the computer program.

However, Beuk et al. discloses distributing radio programs oriented towards computer users by broadcasting computer programs during a radio program (see column 1, lines 40-43). The computer programs are recorded and then loaded into a computer to execute the program (see column 1, lines 62-67) to obtain the radio program. Therefore, it would have been obvious to one skilled in the art at the time the invention was made that to implement the related data of Jeffers et al. and Lert Jr, et al. into a computer program in order to obtain radio program data using a computer program as disclosed by Beuk et al. since Beuk et al. states sending this information as a program and not data adds flexibility to the system (see column 8, lines 65-66).

#### *Allowable Subject Matter*

7. Claims 58-60, 62-103, and 105-145 are allowable over prior art references because related references do not disclose storing acquiring information related to music content data in a temporary and storage and storing the acquiring information in a main storage from a temporary storage when there is a user input while receiving the music content (broadcast signal).

8. Claim 21 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


#### *Conclusion*

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Curtis Odom  
October 30, 2006